

## **REMARKS**

Claims 1, 3, 4, and 9 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection in view of the amendments and remarks contained herein.

### **REJECTION UNDER 35 U.S.C. § 112**

Claims 1-4 stand rejected under 35 U.S.C. § 112, second paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

Applicant amended claim 1 to comply with the written description requirement. Applicant respectfully submits that claim 1 is now in condition for allowance.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1, 3, and 4 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Adan (U.S. Pat. No. 6,288,425). This rejection is respectfully traversed.

Adan is directed generally towards a silicon-on-insulator field effect transistor. The transistor includes a gate region formed on a semiconductor layer. A source region and a drain region are spaced apart by a channel region.

The present invention includes a first extension region that extends from a source region and a second extension region that extends from a drain region. Applicant amended claim 1 to recite that "junction depths of the first and second extension regions are 50% or less of junction depths of the source region and the drain region." The junction depths of the first and second extension regions are proportional to the leak current of the device. As described in paragraphs [0051] and [0052] of the

detailed description, the leak current is reduced as the junction depth  $X_j$  becomes shallower. Having a junction depth of the first and second extension regions at 50% or less of the junction depth of the source and drain is particularly effective for reducing the leak current.

The Examiner asserts that Adan teaches that the junction depths of each of the first and second extension regions is 50% or less of the junction depth of each of the source region and the drain region. However, Adan merely appears to disclose this structure in a drawing. Adan does not teach or disclose the effect of such a structure. At best, Adan discloses that "the source/drain regions may each include regions which may have a concentration of the same level or a concentration of a higher level and may have a depth a little smaller than the junction depth of the source/drain regions." (column 4 lines 32-36). In other words, Adan does not teach or disclose the dependency of the leak current on the junction depth of the extension regions. Therefore, Applicant respectfully submits that Adan does not teach the present invention. Applicant believes that independent claim 1 and its corresponding dependent claims are not anticipated and, therefore, are in condition for allowance.

#### **NEW CLAIMS**

Applicant added claim 9. Claim 9 contains subject matter analogous to claim 1, which Applicant believes to be allowable. Therefore, Applicant respectfully submits that claim 9 should be allowable.

## CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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